

Applic. No.: 09/997,981

Amdt. Dated September 29, 2004

Reply to Office action of July 16, 2004

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REMARKS/ARGUMENTS

Reconsideration of the application is requested.

Claims 1-18 remain in the application. Claims 1 and 10 have been amended.

In the second paragraph on page 2 of the above-mentioned Office action, claims 1-18 have been rejected as being anticipated by Rubinstein (US Pat. No. 5,077,686) under 35 U.S.C. § 102(b).

The rejection has been noted and claims 1 and 10 have been amended in an effort to even more clearly define the invention of the instant application. Support for the changes is found on page 6, line 23 to page 7, line 4 of the specification.

Before discussing the prior art in detail, it is believed that a brief review of the invention as claimed, would be helpful.

Claim 1 calls for, inter alia:

a clock generator or transmitter provided in the other units.

Claim 10 calls for, inter alia:

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generating module clocks in the other units.

According to the invention of the instant application, a clock generator or transmitter is integrated into the peripheral devices and is synchronized by the system clock. The generator or transmitter in the respective other units is not synchronized permanently but in intervals, and the generator or transmitter runs free between the synchronization intervals. That means that a device according to the invention of the instant application does not only have a central unit producing a system clock, but also clock generators in the other units wherein local system clocks are produced. The great advantage of such a device is the additional security provided by the local module clock generators (see page 7, lines 9-18 of the specification of the instant application). Upon failure of the system clock created in the central unit, the local module clock generators continue producing their local clocks, thus it is possible to shut down the processes running in the local units without any danger.

The difference between the invention of the instant application and Rubinstein is the possibility of using the device and method according to the invention of the instant application to produce a module clock in the other units,

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whereas Rubinstein only teaches multiplying the frequency of a system clock generator, so that even processors requiring a faster system clock can be operated on the basis of the slow system clock generator. All figures of Rubinstein only show one clock generator 201 producing the 2X clock (see column 3, line 59 to column 4, line 8). The 2X clock can be multiplied by the processing units 131-134 so that the faster processors can also be supported. In Fig. 3 of Rubinstein, the clock generator 310 is not a clock generator in the sense of the first clock generator 201 because the clock generator 310 does not really produce a system clock, but only receives different clocks such as the 2X clock and provides other clocks such as the 4X clock. According to column 4, lines 63-68 and Fig. 5 of Rubinstein, the clock generator 310 functions to receive a clock signal of a first frequency and to provide adjusted signals of some multiple frequencies of the input signal. That means that the clock generator 310 is not really a clock generator but a frequency multiplier or divider.

According to the architecture of the computer circuit shown by Rubinstein, there is always provided only one clock generator which, according to claim 5 of Rubinstein, is preferably mounted on a backplane for providing a system clock in a computer system with several processors which can have higher system clocks than the clock signal generator on the

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backplane. However, if the clock signal generator in the backplane is switched off, none of the processor is any longer provided with its system clock. That means that upon failure of the clock signal generator, all processes stop working. This is the great disadvantage of Rubinstein as compared to the invention of the instant application in which a module clock in the other units is not only manipulated by a frequency multiplier but is separately produced in those other units. Therefore, in the invention of the instant application the other units can continue for a limited amount of time when the system clock of the central unit fails.

Clearly, Rubinstein does not show "a clock generator or transmitter provided in the other units," as recited in claim 1, and "generating module clocks in the other units," as recited in claim 10 of the instant application. Rubinstein does not teach this important security feature of claims 1 and 10 of the instant application because a common computer system according to Rubinstein only has one clock generator responsible for the system clock of the whole computer system. A usual commercial computer system like a PC disclosed by Rubinstein does not have more than one clock generator due to the extra costs required by the layout according to the invention of the instant application.

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Claims 1 and 10 are, therefore, believed to be patentable over the art and since all of the dependent claims are ultimately dependent on claims 1 or 10, they are believed to be patentable as well.

In view of the foregoing, reconsideration and allowance of claims 1-18 are solicited.

In the event the Examiner should still find any of the claims to be unpatentable, counsel would appreciate a telephone call so that, if possible, patentable language can be worked out.

If an extension of time for this paper is required, petition for extension is herewith made. Please charge any fees which might be due with respect to 37 CFR Sections 1.16 and 1.17 to the Deposit Account of Lerner and Greenberg, P.A., No. 12-1099.

Respectfully submitted,

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For Applicant's

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